

Post-doctoral Fellow with FDA - Peripheral Nerve Stimulation

Job description

A postdoctoral fellowship is available at Food and Drug Administration (FDA), Center for Devices and Radiological Health (CDRH), Office of Science and Engineering Laboratories (OSEL). The position is located at FDA White Oak main campus in Silver Spring, MD. Program participants will be paid a monthly stipend that is dependent on experience (GS-12, starting from \$76,378 per year). Funding is currently available for 1 year with the possibility of extension. The candidate must have received her/his most recent degree within 5 years prior to starting. The applicant has to be eligible to work in the U.S.

Project description

Electrical neuromodulation is a growing field of therapy. One of the risks associated with this intervention is tissue damage due to high level of electrical stimulation. Surprisingly, little is known about the exact mechanism(s) of tissue damage. This gap in knowledge might be a bottleneck for development of new neuromodulation therapies. In this project, rat sciatic nerve animal model will be used to evaluate contribution of different factors to tissue damage. The results of this work will help to shape a modern regulatory landscape and facilitate development of neuromodulation therapies of new generation.

Role of candidate

The candidate will be involved in lab studies for evaluating the safety of electrical stimulation in the peripheral nervous system. The candidate will work in rat animal model, performing surgeries, neural stimulation, electrochemical measurements, neural functional tests and histology. Activities may include experimental design, animal handling, electrophysiology and developing software for data analysis. The qualified candidate should have Ph.D. in Neuroscience or Biomedical Engineering. The desired candidate should have strong motivation to promote innovative neuromodulation technology. Preference will be given to applicants with some or all of the following skills and experience:

- Scientific and engineering curiosity
- Problem solving skills, attention to detail
- Knowledge of neuroscience and pharmacology
- Electrophysiology- recording, stimulation and data analysis
- Histology and confocal imaging
- Electrochemistry and chemical analysis
- Proficiency in MATLAB, Python, or at least one programming language

The following knowledge/expertise is desired:

- Laboratory experience with animal handling and surgery
- Effective oral and written communication skills as demonstrated by presentation in international conferences and publications in peer reviewed journals

How to apply

To apply, please email Pavel.Takmakov@fda.hhs.gov including CV/resume with a cover letter in the body of the email and “Post-doctoral Fellow - Peripheral Nerve Stimulation” as a subject line. The position is available immediately.

Note that this appointment is offered through the CDRH Postgraduate Research Participation Program and is administered by the Oak Ridge Institute for Science and Education (ORISE). The program is open to all qualified U.S. and non-U.S citizens without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran. The individual selected for appointments will not become employees of ORISE, ORAU, DOE, FDA, CDRH, or any other office or agency. Proof of health insurance is required for participation in this program. The appointment is full-time at FDA in the Silver Spring, MD.

Company description

The Food and Drug Administration (FDA) is an agency within the U.S. Department of Health and Human Services. FDA is responsible for protecting the public health by assuring the safety, efficacy and security of human and veterinary drugs, biological products, medical devices, our nation’s food supply, cosmetics, and products that emit radiation. This position is within the Center for Devices and Radiological Health (CDRH). CDRH seeks to assure that patients and providers have timely and continued access to safe, effective, and high-quality medical devices. CDRH facilitates medical device innovation by advancing regulatory science, providing industry with predictable, consistent, transparent, and efficient regulatory pathways, and assuring consumer confidence in devices marketed in the U.S.

The Office of Science and Engineering Laboratories (OSEL) is the research arm of the Center for Devices and Radiological Health (CDRH). OSEL performs product testing; develops reliable standardized test methods for CDRH and industry use; performs anticipatory scientific investigations on emerging technologies; contributes laboratory data to national and international standards used in CDRH decision making; provides scientific and technical training for CDRH staff members; and maintains laboratory collaborations and relationships with scientific researchers in academia and other Federal laboratories. OSEL also coordinates and oversees CDRH’s activities that support the development of national and international standards.